

Claims

- [c1] 1. An aqueous coating composition comprising a film-forming polymer and an organophosphate surfactant, wherein the organophosphate surfactant comprises an ionizable phosphate group and a hydrophobe, and the aqueous coating composition is free of fluorochemical surfactant and poly(oxy-1,2-ethanediyl), α -(nonylphenyl)- ω -hydroxy-phosphate having about 6 moles of ethoxylation per mole of nonylphenyl group.
- [c2] 2. The composition of claim 1 wherein the organophosphate surfactant is about 0.001 about by weight of the aqueous coating composition.
- [c3] 3. The composition of claim 1 wherein the organophosphate surfactant is about 0.01 about by weight of the aqueous coating composition.
- [c4] 4. The composition of claim 1 wherein 10 to 100 wt % of the organophosphate surfactant exists as a neutralized salt.
- [c5] 5. The composition of claim 1 wherein the hydrophobe is a non-phenolic hydrophobe.

- [c6] 6.The composition of claim 1 wherein the hydrophobe is a substituted or unsubstituted alkyl having 1 40 carbon atoms.
- [c7] 7.The composition of claim 1 wherein the hydrophobe is a substituted or unsubstituted aryl or substituted or unsubstituted arylalkyl.
- [c8] 8.The composition of claim 7 wherein the aryl or arylalkyl has 6carbon atoms.
- [c9] 9.The composition of claim 1 wherein the organophosphate surfactant contains up to 50 equivalents of alkoxylation.
- [c10] 10.The composition of claim 1 wherein the organophosphate surfactant has a diester content of up to about 80 wt %.
- [c11] 11.The composition of claim 1 wherein the organophosphate surfactant has a diester content of up to about 60 wt %.
- [c12] 12.The composition of claim 1 wherein the organophosphate surfactant has a monoester content of up to about 100 wt %.
- [c13] 13.The composition of claim 1 wherein the film-forming polymer is an acrylic, vinyl, or vinyl/acrylic emulsion

polymer, or a mixture of two or more thereof.

[c14] 14.The composition of claim 1 wherein the film-forming polymer is a vinyl/acrylic emulsion polymer.

[c15] 15.The composition of claim 13 wherein the vinyl/acrylic emulsion polymer is a styrene/acrylic emulsion polymer.

[c16] 16.The composition of claim 1 wherein the film-forming polymer comprises polymerized phosphate-containing monomers.

[c17] 17.The composition of claim 1 wherein the film-forming polymer is a urethane polymer or a mixture of urethane and acrylic, vinyl, or vinyl/acrylic emulsion polymers.

[c18] 18.The composition of claim 1 further comprising one or more additives selected from the group consisting of surfactants, polymeric emulsifying agents, coalescing aids, wetting aids, leveling aids, ionic crosslinking agents, wax dispersions and emulsions, defoamers and antifoamers, antistatic agents, and biocides.

[c19] 19.The composition of claim 1 further comprising a wetting aid or leveling aid selected from the group consisting of anionic surfactants, cationic surfactants, nonionic surfactants, polymeric emulsifying agents, and mixtures of two or more thereof.

- [c20] 20.The composition of claim 1 further comprising an ionic crosslinking agent selected from the group consisting of metals, metal complexes, or mixtures of two or more thereof.
- [c21] 21.The composition of claim 1 further comprising a coalescing aid selected from the group consisting of organic solvents, plasticizers, and mixtures of two or more thereof.
- [c22] 22.The composition of claim 1 comprising
0.001 to 10 wt % organophosphate surfactant(s);
0.1 to 70 wt % film-forming polymer;
30 to 99 wt % water;
up to 3 wt % ionic crosslinking agent(s);
up to 2 wt % surfactant(s) other than organophosphate surfactant;
up to 40 wt % polymeric emulsifying agent(s);
up to 35 wt % coalescing agent(s); and
up to 40 wt % wax(es);
based on the total weight of the composition.
- [c23] 23.The composition of claim 1 which is zinc free.
- [c24] 24.A method of making the aqueous coating composition of claim 1, the method comprising forming the film-forming polymer in the presence of the organophos-

phate surfactant.

- [c25] 25. The method of claim 24 further comprising mixing the film polymer and organophosphate surfactant with one or more additives selected from the group consisting of surfactants, polymeric emulsifying agents, coalescing aids, wetting aids, leveling aids, ionic crosslinking agents, wax dispersions and emulsions, defoamers and antifoamers, antistatic agents, and biocides.
- [c26] 26. A method of making the aqueous coating composition of claim 1, the method comprising mixing the film-forming polymer with the organophosphate surfactant.
- [c27] 27. An aqueous coating composition comprising a film-forming polymer and an organophosphate surfactant, wherein the organophosphate surfactant comprises an ionizable phosphate group and a non-phenolic hydrophobe.
- [c28] 28. An aqueous coating composition comprising a film-forming polymer that comprises polymerized phosphatemonomers, wherein the aqueous coating composition is free of fluorochemical surfactant.
- [c29] 29. The composition of claim 28 wherein the phosphate-containing monomers are selected from the group consisting of phosphate esters of polyethylene glycol

monomethacrylate and phosphate esters of polypropylene glycol monomethacrylate.

- [c30] 30. An aqueous coating composition comprising a film-forming polymer and one or more additives selected from the group consisting of surfactants, polymeric emulsifying agents, coalescing aids, wetting aids, leveling aids, ionic crosslinking agents, wax dispersions and emulsions, defoamers and antifoamers, antistatic agents, and biocides, wherein the film-forming polymer comprises polymerized phosphatemonomers.
- [c31] 31. A method of polishing a surface, the method comprising applying to a surface the aqueous coating composition of claim 1.
- [c32] 32. The method of claim 31 wherein the surface is a floor, wall, ceiling, countertop, or bathroom surface.
- [c33] 33. The method of claim 31, further comprising applying one or more additional coats of the aqueous coating composition of claim 1.
- [c34] 34. A coating produced by the method of claim 31.
- [c35] 35. A finished surface comprising a surface and a coating produced by the method of claim 31.
- [c36] 36. A method of polishing a surface, the method com-

prising applying to a surface the aqueous coating composition of claim 30.